ABSTRACT

SYSTEM AND A TWO-PASS ALGORITHM FOR DETERMINING THE OPTIMUM ACCESS PATH FOR MULTI-TABLE SQL QUERIES

5   An apparatus, article of manufacture and computer-based method is provided for determining the optimum join sequence for processing a query having a plurality of tables from a relational database stored in an electronic storage device having a database management system. The method is performed in two passes. The first pass is used for determining an optimum join sequence for joining the plurality of tables from the query. The second pass uses the optimum join sequence for creating a lowest cost access path plan for processing the query. The first pass performs successive steps until creation of a simulated composite table having all tables from the query, wherein each step creates a set of miniplans for simulating all possible joins of a predetermined subset of the query tables and uses a cost model calculations for estimating and saving the least expensive join from this set of joins.

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